

REMARKS

Claims 13 and 15-30 were previously pending in the application. By this Amendment, claims 13, 15, 18, 20, 21, 24, and 25 are currently amended, claims 16, 17, 26 and 27 are cancelled, and new claims 31 and 32 have been added.

Claims 13-15, 18-20, 22-25, 28 and 30 were rejected under 35 USC §103(a) as being unpatentable over UK Patent Application No. GB 2 323 436 to Redelsperger et al. (hereinafter "Redelsperger") in view of US Patent No. 6,497,276 to Clark et al. (hereinafter "Clark") and European Patent Application No. 0 156 717 to Gelineau et al. (hereinafter "Gelineau"). Claims 16, 17, 26 and 27 were rejected under 35 USC §103(a) as being unpatentable over Redelsperger in view of Clark and Gelineau as applied to claims 13-15, 18-20, 22-25, 28 and 30 above, and further in view of US Patent No. 3,946,364 to Codomo et al. (hereinafter "Codomo").

Independent claim 13 as amended recites a cooking device, comprising: a housing; a cooking chamber arranged in said housing, the cooking device having multiple operating modes indicating a stage of a cooking cycle and including at least a heating-up phase and a cooling phase, the heating-up and cooling phases dependent on activation and deactivation of at least one heating element; a door on said housing for closing said cooking chamber; and at least one control and display panel with an optical luminous display which can display the different operating modes of said cooking chamber and the on and/or off modes of said cooking chamber, wherein said luminous display includes a substantially linear luminous band and has at least one of: a light or color intensity which is in direct relation to the temperature of said cooking chamber; and a color which is in direct relation to the temperature of said cooking chamber. Applicant has amended claim 13 to clarify the mechanics of the heating-up and cooling phases, and the construction and operability of the luminous display. The amendments related to the luminous display include the subject matter of claims 16 and 17, which have been cancelled herein.

Dependent claim 15 has been amended herein to clarify that the luminous display is a pulsating arrow of increasing/decreasing vertical bars. Dependent claims 18, 20, and 21 have been amended herein to properly depend from independent claim 13.

Independent claim 24 recites a cooking device, comprising: a housing; a cooking chamber arranged in said housing, the cooking device having multiple operating modes indicating a stage of a cooking cycle and including at least a heating-up phase and a cooling phase, the heating-up and cooling phases dependent on activation and deactivation of at least one heating element; a door on said housing for closing said cooking chamber; at least one control and display panel having control elements for controlling operation of the cooking device and the cooking chamber, with said display panel being separate and distinct from said control elements; and said display panel comprising an optical luminous display configured for displaying each operating mode of the cooking chamber, including at least current operating mode, residual heat present in the chamber after the cooking chamber is no longer being heated, and the on and/or off modes of said cooking chamber, wherein said luminous display includes a substantially linear luminous band and has at least one of: a light or color intensity which is in direct relation to the temperature of said cooking chamber; and a color which is in direct relation to the temperature of said cooking chamber. Similarly to claim 13, claim 24 has been amended to clarify the mechanics of the heating-up and cooling phases, and the construction and operability of the luminous display.

Independent claim 25 recites a method of displaying operating conditions of a cooking device having a housing, a cooking chamber arranged in said housing, the cooking device having multiple operating modes indicating a stage of a cooking cycle and including at least a heating-up phase and a cooling phase, the heating-up and cooling phases dependent on activation and deactivation of at least one heating element, a door on said housing for closing said cooking chamber; and at least one control and display panel with an optical luminous display including a substantially linear luminous band having at least one of a light or color intensity which is in direct relation to the temperature of said cooking chamber and a color which is in direct relation to the temperature of said cooking chamber, the method comprising the acts of: indicating the on and/or off modes of said cooking chamber with the display; indicating the current operating mode of said cooking chamber with the display; indicating a current temperature within the cooking chamber in the heating-up phase

as a first band portion on the linear luminous band width a steady light and indicating a desired yet to be reached temperature within the cooking chamber as a second band portion with a blinking light, the illuminated length of said substantially linear luminous band being variable in relation to the temperature of said cooking chamber. Similarly to claims 13 and 24, claim 25 has been amended to clarify the mechanics of the heating-up and cooling phases, and the construction and operability of the luminous display. The amendments related to the luminous display include the subject matter of claims 26 and 27, which have been cancelled herein.

Preliminarily, it is noted that in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine reference teachings. See MPEP § 2143. Second, there must be a reasonable expectation of success. Id. Third, the prior art references must teach or suggest all the claimed features of the present invention. Id. In view of all the factual information, a determination must then be made as to whether the claimed subject matter as a whole would have been obvious at the time to that person. See MPEP § 2142. It must be kept in mind that impermissible hindsight is to be avoided and a legal conclusion of obviousness must be reached on the basis from the facts gleaned from the prior art and cannot come from the invention itself. Id.

Redelsperger discloses a panel for controlling the operation of an electric oven having a plurality of operating modes in which the user's choice of a cooking temperature automatically determines the cooking mode via a control member. The user is allowed to select a temperature, which then determines the cooking mode through a control member associated with the oven. As selections are made, portions of the display are shut off. The screen on the device includes a plurality of zones, but not all zones are displayed simultaneously while the oven is in use, with only those zones that are necessary for adjustment or information purposes appearing. Redelsperger also discloses that the screen displays the state of progress in cooking, such as "Cooking now", "Will cook later", and "Cooking over". These displays are equivalent to on, off, or delayed and merely indicate whether the

cooking cycle is active or not. They do not indicate a stage of the cooking cycle, as defined in the presently amended claims, or do not include at least one of a light or intensity which is in direct relation to the chamber temperature and a color which is in direct relation to the chamber temperature.

Gelineau does not cure the defects of Redelsperger. Gelineau discloses a linear display. However, Gelineau provides no indication that the linear display displays the different operating modes of said cooking chamber and the on and/or off modes of said cooking chamber indicating a stage of a cooking cycle and including at least a heating-up phase and a cooling phase, as presently recited in claims 13, 24 and 25. The linear display of Gelineau further does not include at least one of a light or color intensity which is in direct relation to the chamber temperature and a color which is in direct relation to the chamber temperature. Rather, Gelineau merely includes a reference that the linear display indicates temperature.

Clark does not cure the defects of Redelsperger and Gelineau. The Examiner has relied upon Clark stating that the patent to Clark "has been presented for showing the conventionality of both heating and cooling phases in oven controllers". Applicants respectfully submit that the cooling phase as disclosed in Clark is completely irrelevant to the present invention as claimed. Clark merely discloses a combined refrigerator-oven apparatus for refrigerating and cooking food in the same enclosed chamber. The refrigerator-oven includes a heating unit and a refrigeration unit and a controller in communication therewith. When a cooling mode is selected, the controller activates the refrigeration unit to deliver cool air into the enclosed chamber. When a heating mode is selected, the controller activates the heating unit to produce heat in the enclosed chamber. The display of Clark enables the user to program the refrigerator-oven in each of a cooling, heating, and warming modes at pre-selected times and temperatures. Clark does not disclose an illumination display indicating a stage of the cooking cycle, as defined in the presently amended claims, or does not include at least one of a light or intensity which is in direct relation to the chamber temperature and a color which is in direct relation to the chamber temperature.

Regarding Codomo, Applicant maintains the assertion that this reference is non-analogous art. The Examiner must find analogous art in order to rely on the art as a basis for rejection. To be analogous, the reference must either be in the field of Applicant's endeavor or be reasonably pertinent to the particular problem with which the inventor was concerned. See In re Oetiker, 977 F.2d 1443, 1446-47 (Fed. Cir. 1992); In re Clay, 966 F.2d 656, 658-89 (Fed. Cir. 1992).

Regarding the first element, Codomo is clearly not in the Applicant's field of endeavor. Codomo discloses a method and apparatus for automatically sensing, displaying and recording one or more over-temperature events exhibited by a jet engine. Codomo is not related to cooking devices, ovens or any other type of household appliance. Therefore, Codomo is not in the Applicant's field of endeavor.

Regarding the second element, Codomo is not reasonably pertinent to the particular problem with which the Applicant was concerned. A reference may be reasonably pertinent if it is one which logically would have commended itself to an inventor's attention in considering his problem. A person of ordinary skill in the art of ovens and cooking devices would not reasonably be expected or motivated to look to the art of jet engines. A reference regarding a method for sensing excessive temperature conditions in a jet engine would not have logically commended itself to the attention of an inventor considering the problem of displaying the operating mode indicating a stage of a cooking cycle of an oven. The Applicant would not have logically considered Codomo because the reference is directed to an entirely different purpose. Applicant therefore respectfully submits that Codomo is non-analogous art.

While the cited references fail to teach the claims as presently amended, there also is no suggestion or motivation to combine the Redelsperger, Gelineau, Clark, and Codomo references. As shown in Fig. 1, Redelsperger already has a digital temperature display (17). Referring to Fig. 8, Clark has a display 38 wherein the mode, time, temperature, etc. is set by the user. There is no motivation or need to combine the additional linear display of Gelineau to the displays already present in Redelsperger and Clark. Also, the prior art provides no teaching or suggestion of why such a combination would be desirable. Codomo is non-analogous art as

described above and there is no motivation or need to combine this reference and the others.

In addition to distinctions discussed above related to claims 13, 24 and 25, claim 24 also recites that the residual heat present in the chamber is the heat remaining in the chamber after the cooking chamber is no longer being heated. Normally, oven displays only display the temperature within the cooking chamber during the cooking cycle. However, the oven may remain at an elevated temperature while it is cooling down after the cooking cycle is completed. The oven may be turned off, but this residual heat remains within the cooking chamber for a period of time. None of the cited references disclose displaying the residual heat present in the chamber, as recited in claim 24.

In addition to distinctions discussed above related to claims 13, 24 and 25, claim 25 also recites indicating the current operating mode of said cooking chamber with the display and indicating a current temperature within the cooking chamber in the heating-up phase as a first band portion on the linear luminous band with a steady light and indicating a desired yet to be reached temperature within the cooking chamber as a second band portion with a blinking light, the illuminated length of said substantially linear luminous band being variable in relation to the temperature of said cooking chamber. None of the cited references disclose this variable luminous band operation.

Based on the above, Applicant respectfully submits that the cited references, either alone or in combination, do not teach or suggest all of the elements recited in the presently amended claims. As such, Applicant respectfully requests the withdrawal of the rejections under 35 USC § 103(a) and allowance of independent claims 13, 24 and 25. Claims 15 and 18-23 depend from claim 13 and claims 28-30 depend from claim 25 and therefore these dependent claims should be allowed for the same reasons above and also because they recite additional patentable subject matter.


The Examiner's indication of allowable subject matter in the form of claims 21 and 29 if rewritten in independent claim form is gratefully acknowledged. New claims 31 and 32 have been added herein which represent claims 21 and 29,

respectively, rewritten in independent claim form. Allowance of new claims 31 and 32 is respectfully requested.

CONCLUSION

In view of the above, entry of the present Amendment and allowance of claims 13, 15, 18-25, and 28-32 are respectfully requested. If the Examiner has any questions regarding this Amendment, the Examiner is requested to contact the undersigned. If an extension of time for this paper is required, petition for extension is herewith made.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Russell W. Warnock", written in a cursive style.

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